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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,745	11/02/2001	X. Steve Yao	12361-014002	7353

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EXAMINER

BEN, LOHA

ART UNIT PAPER NUMBER

2873

DATE MAILED: 11/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
10/005,745

Applicant(s)  
YAO

Examiner  
LOHA BEN

Art Unit  
2873



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Nov 2, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-80 is/are pending in the application.
- 4a) Of the above, claim(s) 1-30 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31, 32, 34-45, 48, 56, 57, 59, 60, 64, 65, 67-74, 76-78, and 80 is/are allowed.
- 6) ☒ Claim(s) 33, 46, 47, 49-55, 58, 61-63, 66, 75, and 79 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other:

*Loha Ben*  
Loha Ben  
Primary Examiner

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## DETAILED ACTION

### *Response to Amendment*

The Preliminary Amendment dated November 2, 2001, made in the specification, is not in compliance with 37 CFR 1.173(b)(1).

In the Claims: (1) the PM fiber segment characteristic now claimed in claims 33, 49-55 and 61-63 is not disclosed in the specification; (2) the factor of " $2^n$ " that defines the difference in length between **two different** birefringent segments as noted in claims 58, 66, 75 and 79 is also not disclosed in the specification.

Please note that, in (2) above, the " $2^n$ " factor is inaccurately defined for such a difference in length. The factor should be --  $2^{M-n}$  --, where M and n are positive integers representing higher and lower order numbers of any two birefringent segments, respectively, with  $1 \leq n \leq (M-1)$ , and  $M \geq 2$ .

The limitations noted in (1) and (2) constitute new matter. Especially, in (2), nowhere in the specification is the specific difference in length between any two birefringent segments disclosed. Only comparison of length between two **consecutive, not any two**, segments, and calculation of maximum value of the delay are seen defined. Rejection as a result of the foregoing follows the objection to the informality in the Specification.

### *Specification*

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1. The disclosure is objected to because of the following informalities: There is a discrepancy between equation "(3)" of column 6 and equation "(5)" of column 7 of the patent (5,978,125).

See the exponent of the last term in the first pair of parentheses.

Appropriate correction is required.

***Claims Rejection ( 112 )***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 33, 49-55, 58, 61-63, 66, 75 and 79 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter ( PM fiber segment, and the 2<sup>n</sup> factor as pointed out above ) which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention .

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 46, 47, 58, 66, 75 and 79 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation in claim 46 is not understood.

In claim 47: line 2, "said portion" has no antecedent basis.

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In claims 58, 66, 75 and 79, the factor of " $2^n$ " cannot universally define the difference in length between **any two** different birefringent segments. What is " $n$ " associated with?

In claims 58, 66, 75 and 79, as is understood, on lines 2 and 3, the factor in question should be --  $2^{M-n}$ , where  $M$  and  $n$  are positive integers representing higher and lower order numbers of **any two** birefringent segments, respectively, with  $1 \leq n \leq (M-1)$ , and  $M \geq 2$  --.

***Rejection based on New Matter under 35 U.S.C. 251***

Claims 33, 49-55, 58, 61-63, 66, 75 and 79 are rejected under 35 U.S.C. 251 as being based upon new matter added to the patent for which reissue is sought. The added material which is not supported by the prior patent is as follows: See explanation given above.

***Allowable Subject Matter***

Claims 31, 32, 34-45, 48, 56, 57, 59, 60, 64, 65, 67-74, 76-78 and 80 are allowed. The allowable subject matter rests with the arrangement of the plurality of the variable optical delay units and their respective control systems.

***Remark***

The original patent has not been surrendered, nor has any statement as to the loss or misplacement of the original patent been made in the application.

***Communication***


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Any inquiry concerning this communication should be directed to Loha Ben at telephone number (703)308-4820.

The examiner's work schedule is from Monday to Saturday, and generally between 12:00 noon and 8:00 p.m.

A receptionist can be reached at (703)308-0956 concerning matter of a general nature.

November 1, 2002



**Loha Ben**  
**Primary Examiner**